Stuart Cunningham, Jon Silver and John McDonnell

RATES OF CHANGE: ONLINE DISTRIBUTION AS DISRUPTIVE TECHNOLOGY IN THE FILM INDUSTRY

Abstract

Much debate in media and communication studies is based on exaggerated opposition between the digital sublime and the digital abject: overly enthusiastic optimism versus determined pessimism over the potential of new technologies. This inhibits the discipline's claims to provide rigorous insight into industry and social change – which is, after all, continuous. Instead of having to decide one way or the other, we need to ask how we study the process *of change. This article examines the impact of online distribution in the film industry, particularly addressing the question of* rates *of change. Are there genuinely new players disrupting the established oligopoly, and if so with what effect? Is there evidence of disruption to, and innovation in, business models? Has cultural change been forced on the incumbents? Outside mainstream Hollywood, where are the new opportunities and the new players? What is the situation in Australia?*

There is no more central issue in media and communications studies today than the proposition that we are in the middle of a rapid process of change that is seeing established or 'old' media being challenged for primacy in audiences' and users' attention by new modes and types of production, dissemination and display. Reworking the famous communications dictum of Harold Lasswell as 'what's going on, why, by whom, where and with what effect' is what preoccupies us all today.

But the problem is that most debate about industry structure and change in film, media and communication studies, and in critical humanities and social sciences generally, is based on an exaggerated opposition between enthusiastic optimism versus determined scepticism over the potential of new technologies. There are assertions of 'fundamental crisis' in the strategies of the media and communications industries versus counter-assertions of *plus ça change, plus c'est la même chose* – that the present is a minor blip in the march of hegemonic capital.

This is a depressing predicament and inhibits these disciplines' claims to provide rigorous insight into industry change – which is, after all, continuous. It is based on deep-seated values that often result in 'glass-half-empty/glass-half-full' debates, which manage the challenging complexity of universes of data by dividing them into selective portions that confirm previously established positions.

At the industry coalface, the reality is much more confused and complex. The long-term decline in newspaper circulation is seemingly irreversible. But there is evidence that some newspapers, such as *The Australian* and the *Australian Financial Review*, have managed to maintain their circulations in the face of long-term industry decline. This is usually based on a business model of hard news targeted at specific upmarket demographics, which may work even in the straitened circumstances of the print media.

There is surely no doubt that the exponential growth of the blogosphere and of amateur or citizen journalism can be a democratising trend, but the equally dramatic loss of employment prospects in 'public trust', or 'fourth estate', journalism has as much potential for creating a democratic deficit through the loss of experienced journalists from the public sphere.

The music industry has been turned upside down by the ease with which peers can download and share their favourite playlists. A major new player has come into the music distribution industry – Apple iTunes – but it remains the case that this still represents a small minority of the total download and sharing activity taking place via the internet. However, it took a computer company (albeit with a remarkable record of innovation) to develop this model. Meanwhile, the recording industry remains bitterly divided about the legalities of digital consumption, with the majors (Sony Music, Warner Music, Universal Music, EMI and BMG-Bertlesmann) continuing to claim ongoing devastation while other evidence points to judicious use of the net as a promotional medium benefiting many music entrepreneurs.

Change is indeed continuous, but critics tend to over- or under-read it. Are we 'both witnesses to and participants in the largest, most fundamental transformation in the history of the media since the advent of typeface, the moving image, and terrestrial broadcast transmission' (Levin, 2009: 258), or is the evidence for the supplanting of old by new 'sparse and thin' (Miller, 2009) and does it ignore the way the new is folded into the old, adding to it rather than killing it off? In her magisterial work, *The Printing Press as an Agent of Change*, Elizabeth Eisenstein (1979) points out that Europe was relatively stable in 1450 before the Gutenberg revolution, and was relatively stable in 1550 after it. But in the intervening decades, there was chaos and great change in values and institutions and much experimentation. Historians, she says, have ignored the transitional times.

In the spirit of Eisenstein, we need to ask: how do we study the process and the rate of change? As a key indicator, are there new players disrupting the established Hollywood oligopoly, and if so with what effect? Third, is there evidence of disruption to business models? Has there been corporate cultural change? Finally, outside mainstream Hollywood, are there new opportunities and new players?

The object of study

Film is a ready focus for this work, as it has been among the most stable of the main media content industries over the long term and, relatively speaking, less affected to date by digital technology undermining the market power of the major corporations that dominate the industry. The term 'video on demand' (VOD), the object of study, is used broadly in the industry to describe delivery of all forms of video content via platforms such as satellite TV, cable TV, IPTV (with programming delivered via internet protocols to a set-top box connected to a TV); internet-enabled games consoles such as the Playstation 3, Xbox and Wii, and on the internet, where video can be viewed via a web browser or a media player. However, VOD could potentially include an analogue form of delivery such as Netflix sending a DVD in the mail. The term 'digital distribution' could also include distribution to digitally enabled cinemas. 'Online distribution' (OLD) therefore seems the best term to describe movies on demand delivered via the internet, although we will use VOD as well in this article due to it being industry *lingua franca*. OLD is conducted by numerous enterprises that offer film, or film with other screen content, and/or technology or software that facilitates content delivery. This corpus includes both legal and illegal websites and a number of websites that are now defunct. We devote a separate section to developments in OLD in the Australian marketplace.

Method

Research on this corpus commenced in March 2008 and has involved an ongoing online search for, and examination of, the content and business models of websites delivering movies on demand via the internet. Initially, key words such as video on demand, movies on demand, digital distribution, online film distribution and others were used to identify such websites. Leading trade magazines, online business directories, expert service providers to the industry and industry bloggers were also consulted (e.g. *Screen Digest*, *Variety*, *Screen Daily*, *Broadcast*, Nielsen Wire, *CNet News*, Hoovers.com, BizShark, Venture Beat Profiles, Gartner, PriceWaterHouseCoopers, Ernst & Young, VideoNuze, The Business of Online Video, Daily IPTV, OmniVideo, Paid Content, Web TV Wire). Business databases Factiva and Proquest were used to identify relevant articles on the industry and on OLD service providers, from which corporate profiles and comparative tables were developed. An online intelligence-gathering website was set up on My Yahoo that delivers RSS feeds, news headlines from industry trade magazines, VOD experts and leading blogging sites that cover the industry.

History of online distribution

OLD first emerged in 1997 but a decade later remains a relatively small though growing market that *Screen Digest* (2009) estimated was worth $227 million in North America in 2008 (which in turn represents 95 per cent of the global revenues for this sector), compared with a North American theatrical box office of US$9.6 billion and home video of US$25.8 billion (Wilkofsky Gruen, 2008). The online film pioneers – I-Film, Atom Films, Intertainer, SightSound, Pop.com and CinemaNow – either folded or were absorbed by larger companies after failing to establish sustainable business models. In 2001, six of Hollywood's majors (Paramount, Universal, Warner Brothers, 20th Century Fox, Walt Disney and Sony) invested in Movielink and Moviebeam. These were expected to be the leaders of a second wave. However, both websites were sold in 2006 after failing to establish themselves as dominant players. A third wave is now building, led by Apple iTunes, which has rapidly built a leading movie download business, with Hulu the leading streaming site along with Amazon, Netflix and Blockbuster (which acquired Movielink) and some others.

The current state of play

There are several key features of the present 'moment' in OLD. First, there are major disruptors from outside the film industry: Apple iTunes, but also Amazon VOD (and its subsidiary createspace.com), both of which have explored different business models in online distribution than the Hollywood majors. Second, there is beginning to be significant change in release trajectories in the light of OLD: Warner Brothers released *The Dark Knight* to online and cable TV two weeks prior to its release on DVD in South Korea (Noh, 2008). Warner extended this strategy to Japan in July 2009 with the day-and-date VOD/DVD release of *The Curious Case of Benjamin Button* (Gray, 2009a). South Korea and Japan were likely chosen because of the speed, quality and accessibility of broadband available in those countries. Third, YouTube – the internet's premier site for user-generated VOD – introduced long-form video content and the option of high definition, and started dealing with Paramount, Warners, Sony and Lionsgate, Hollywood leaders who were not backing Hulu, for premium content and back-catalogue full-length movies (Parrick, 2009).

Fourth, OLD dynamics begun to be explored by major players from retail to social media. Netflix provided VOD free to its large subscriber base; MySpace introduced video for mobile phones (Schroeder, 2008); social networking site Bebo continued to enjoy significant success with its low-budget, made-for-the-web teenage soap operas, engaging its 40 million subscriber base and enabling producers to retain 100 per cent of advertising revenues generated (Bulkley, 2007; Murphy, 2008); and Sezmi, the first true all-in-one open platform digital distribution box capable of providing video content from any source, was introduced (Hachman, 2008).

Fifth, the majors seemed to have found a workable model for OLD on their terms with the rapid rise in popularity of advertiser-supported streaming site Hulu within the US market. Hulu went live in March 2008, and in one year quintupled its video streams. It was critically important for its business model to show advertisers that a significant audience could be attracted, and by mid-2009 Hulu was the second largest VOD site, ahead of the longer established big brand name sites like Yahoo, Fox, Nickelodeon, MSN, ABC.com, MTV, Turner Sports, EDN and CNN (Nielsen, 2009). At 2.4 per cent share of the total market (Comscore, 2009), Hulu is dwarfed by YouTube, which continues to dominate VOD with 41 per cent share, but the vast majority of YouTube video content does not attract advertisers. In May 2009, Disney became a 27 per cent stakeholder in Hulu alongside founders NBC-Universal, Fox and Providence Equity Partners. Hulu has dealt the majors back into OLD after they appeared to throw in the towel when five studios (Universal, Paramount, MGM, Sony and Warner Brothers) sold Movielink and Disney sold its digital distribution platform Moviebeam.

However, sixth, some fundamental problems in the basics of OLD emerged during 2009. A strong view emerged that Hulu's business model, based on ad-supported free viewing, may not be sustainable because ad revenues for online video were estimated to be 60 per cent lower than for the same program shown on network television (Richmond, 2009). Additionally, VOD suffers from *dis*-economies of scale – YouTube was facing a $470 million loss in 2009 with user-generated content considered to be a financial albatross. YouTube's viewers watch 75 billion videos each year, and the critical issue is that the most popular videos are also the most expensive to provide due to required bandwidth, new servers to cope with growth and escalating electricity costs (Manjoo, 2009). The vast majority of YouTube's content is user generated (Parrick, 2008), and ads are sold on less than 10 per cent of videos – hence YouTube's ad-supported business model for non-professional content is also probably unsustainable.

Hulu's rapid growth has levelled off; it is rapidly trending towards a subscription-plus-advertising revenue structure. By the third quarter of 2009, despite having 200 advertisers, 40 million viewers and 500 million video streams per month, Hulu's 2009 revenues were forecast to be $164 million, falling short of budget and facing a loss of $33 million (Walsh, 2009).

OLD in the Australian marketplace

There was no significant Australian online film distribution activity during the pioneering era of the late 1990s and early 2000s. The first Australian-led opportunity for local independent films to find a niche market online emerged during the second wave in 2003, when actor Brian M. Logan established a short-lived Australian branch of IndieFilmWeb.com to provide a VOD service for independent films (Urban, 2004a) and Hoyts launched Homescreen Entertainment – a Netflix-modelled website where customers ordered DVDs online and had them delivered by mail to their homes (*Sydney Morning Herald*, 2003). Local rivals with similar offerings around this time included QuickFlix, Webflix and Meteor. Quickflix acquired Homescreen in 2005. That same year, film reviewer Andrew Urban began selecting a range of Australian films to screen as movie downloads on Canada's CineClix.com (Urban, 2004b) but the website ran out of money to finance the ongoing development of the technology. A few Australian films made in the early twentieth century and now in the public domain, such as *The Story of the Kelly Gang* (1906), *The Sentimental Bloke* (1919), *Robbery Under Arms* (1920) and *For the Term of His Natural Life* (1927), also began appearing on the Internet Archive (www.archive.org/details/Sentimental_bloke).

All of the factors that we canvass in the next section of this article – download speeds, small computer screens, primitive compression technologies and effective peer-to-peer (P2P) alternatives – that militated against rapid and smooth take-up of OLD apply to this pre-YouTube era in Australia. In addition, though, Australia was slow to build adequate broadband infrastructure and, when the big push from the ISPs came in the latter half of this decade, it focused mainly on ADSL, so Australians continued to suffer comparatively poorer quality broadband with strict download limits that served as a further disincentive to download large files.

In 2006 – the same year that the majors sold Movielink and Moviebeam, Apple iTunes launched its movies on demand store in the United States, Netflix made its 'Watch Instantly' streaming service available to its DVD subscribers in the United States and Amazon unveiled Unbox, its own VOD service – a second wave of Australian players came into the market. Telstra, Australia's largest telco and cable broadband supplier (via its BigPond subsidiary), launched BigPond Movies – the first major paid download service offering a range of Hollywood movies and television content (Moses, 2006). It was followed by Melbourne-based Reeltime.tv, which partnered with Yahoo7 (a Yahoo-Seven television network co-branding venture) to offer a similar online service (Yahoo! Press Release, 2006). In 2007, access to BigPond Movie downloads was extended to include delivery via other platforms – Xbox and Microsoft's Windows Vista Media Centre (ITWire, 2007), and the Fairfax organisation teamed with Anytime to launch a similar movies-on-demand service featuring mainstream Hollywood content – Anytime on Volt (Anytime Media Centre, 2007). However, despite BigPond CEO Justin Milne's assertion in 2006 that he would 'acquire download rights to just about every Australian film "in a heartbeat" if negotiating the rights were simpler' (Urban, 2006), BigPond Movies' home-delivery DVD rental catalogue comprised 40,000 titles, of which 1,400 (3.5 per cent) were Australian. By December 2009, only 24 Australian films were available for download online (BigPond Movies, 2009).

In 2008, Apple iTunes launched its movies-on-demand service via its Australian online store (Small and Wolfson, 2008). Reeltime.tv failed, and within months DVD retail chain EzyDVD took over its infrastructure and launched EzyDownload, offering movie rentals and download-to-own (Broughall, 2008); however, EzyDVD went into receivership shortly afterwards.

In 2009, TiVo partnered first with the Seven Television Network and then with Blockbuster Video to offer movie download services (Sinclair, 2009; Chen, 2009). Quickflix also announced a movie download service (Kidman, 2009); this was followed in late 2009 by the launch of Foxtel Download (Dudley-Nicholson, 2009) – a value-adding service to PC-owning Foxtel subscribers but available to Mac users only if they had Windows installed. Telstra launched the T-box digital set-top box to compete with TiVo and Foxtel IQ (Meade, 2009) and Sony and Microsoft announced that high-definition movies would become available for download via Playstation 3 and Xbox by Christmas 2009.

Thus, over the course of this 'disruptive' decade, the few pioneering Australian experiments have disappeared except for Quickflix. Those that have taken their place provide similar services to the leading third-wave OLD websites and copy their business models. The big-brand OLD platforms – iTunes, Amazon, Netflix, Big Pond Movies and TiVo-Blockbuster – market overwhelmingly mainstream features and television content, and do very little to provide new opportunities for Australian independent film. Comparatively, film has lagged behind television online as Australian content has a wider range of online outlets via the websites of the national television networks as well as the mainstream OLD sites.

Australian feature films that receive mainstream distribution are sometimes made available via iTunes and Amazon VOD (the latter is not available to Australian viewers). Not so for the many smaller movies that do not find a theatrical or a direct-to-DVD release; unless the producers of these films actively pursue democratised opportunities that do exist online through OLD websites such as Jaman (www.jaman.com/Australia/region/4), CreateSpace, EZ Takes and others, they will never be seen by an online audience. Smaller films that do well at film festivals can find online distribution via BSide, Babelgum and I-Arthouse, and short films can be exhibited online at niche websites like Aussieshortfilms.com.au and Switch.tv. Few local producers have taken advantage of OLD sites such as Jaman, which lists only six Australian films compared with 51 from Denmark and 141 from India.

Somersault, the AFI's best film in 2004 and well received at prestigious film festivals including Cannes, Toronto and Karlovy Vary, had a modest theatrical release, taking $2 million at the Australian box office (Urban, 2005) and only US$92,000 in North America (The-Numbers.com, 2009). However, it has the highest online profile among low-budget Australian films – the trailer is on iTunes;

the film is available online to rent or buy at Amazon VOD, Netflix, Jaman, the Auteurs and via a Dutch film portal (Let Me Watch This.com, 2009).

Smaller Australian producers tend to use YouTube and Vimeo for trailers, and typically cross-promote their films online using Facebook and Twitter. We have seen no truly innovative Australian websites for releasing Australian films online. There may possibly be sporadic cases of small content sites that have enjoyed modest success, but none emerged on our radar during our two-year tracking study of OLD websites.

Having set the scene empirically, we now return to the five analytical questions with which we started.

Rates of change: How rapid?

Compared with the impact of P2P on the music industry, and the blogosphere and online classified advertising on newspapers, change in film has been slower and has had a less disruptive influence. Rates of change in book publishing and magazines have been somewhat slower than in film. These comparisons would seem to some extent logical, given the nature of the content in each category.

Key issues faced by OLD pioneers from 1997 to the mid-2000s included the lack of a quality viewing experience – VOD requires high-speed broadband, which has only recently begun to diffuse globally. Combined with primitive video compression compared with today's standards, this meant that movies took many hours or even days to download over a dial-up connection and very few websites offered a wide selection of box office hits. Most movies available as paid downloads online were mostly B movies; product quality was perceived as poor. In addition, until large-panel LCD screens for computers and large-panel plasma and LCD TV diffused widely amongst the consumer base from the mid-2000s onwards, watching movies or TV shows on a small computer screen was not an optimal viewing experience. However, arguably the prime mover was Hollywood's slowing rather than hastening change.

Of course, downloading for free was burgeoning throughout this period via reasonably efficient but also sophisticated platforms such as BitTorrent. The majors spent the best part of the last decade (a decade of experimentation and innovation) putting more energy into denial, threat and attempted litigation (and megaphone diplomacy directed at East Asia, when most download piracy is estimated to occur inside the United States), while pirated downloading continued to create viable work-arounds and a parallel culture of consumption with its own 'innovation' champions.

However, as we have argued, there were strong indicators in 2008–09 confirming that VOD may be following the classic four-stage industry lifecycle: fragmentation, shakeout, maturity and decline (McGahan et al., 2004). Recent developments would indicate that VOD has now moved from the initial fragmentation stage, where industry structures were evolving, barriers to entry were low and new firms proliferated in search of customers, into the shakeout stage where market growth escalates, industry structures consolidate and dominant players emerge through organic growth or via mergers and acquisitions.

New players?

Netflix and Blockbuster are becoming online video stores, offering streaming to their customers as they plan for the decline of storefront and mail-order DVD rental and sales. They are focused on turning online into their core business and may have the resources and scale to remain leading players – this despite Blockbuster teetering on the edge of bankruptcy (Bloomberg News, 2009). They are outside the Hollywood distribution mainstream, but are complementary to that mainstream. Crackle is owned by Sony and intended as a gateway to other Sony products (Sony Pictures, Sony Music, Playstation 3, Sony Bravia TV), and can be considered to be inside the Hollywood tent.

Hulu is very much a new player, but also a Hollywood insider (however, see 'Cultural Change' below). Apple is a computer manufacturer but is now a dominant player in music, movie and TV downloads. Apple's preparedness to apply what we call 'IT-innovation' business principles (including selling what the content industry calls premium content at pricepoints below the latter's acceptability threshold in order principally to sell devices – the iPod, iPhone, iPad, Apple TV set-top box – at premium prices) probably tipped the majors out of Movielink (downloads) and into Hulu (ad-supported streaming) and has brought a major new player into film distribution.

Amazon VOD is an internet 'pure-play' company. It is the biggest online retailer, with an enormous range of titles, big-brand equity, customer loyalty (with sophisticated customer engagement strategies) and unrivalled data-mining expertise. After a decade developing expertise in online customer retention and engagement, revolutionising book distribution based on range, price transparency and personalised marketing, it is primed to play a major role in OLD if it decides to do so. Importantly as well, from the point of view of relations with Hollywood majors, it is not Apple. The synergistic nexus of Amazon VOD, IMDB, Box Office Mojo, CreateSpace and Without-a-box offers much to independent filmmakers if the central issue of marketing their product can be addressed.

Disruption to business models?

There is a mix of established and new models in the OLD space. The *advertiser-supported* model enables visitors to watch movies and TV programs free, with ads included within the program and between shows – this is the commercial free-to-air TV model migrated to the web (the most successful online site is Hulu). *Sales* sites offer e-customers the option of micro-charges – that is, renting and/or buying individual movies or TV programs as paid downloads (Apple iTunes is the leader among sales sites). The sales model can also offer macro-charges – *subscription* sites that offer rental or purchase for a determined time period, while others provide a value add-on in the form of free streaming to their subscribers, who pay a monthly fee to receive physical DVDs shipped to their home (e.g. Netflix).

The key differentiator and new element is the forced entry of the 'IT-innovation' model. Hulu is classically content-driven while iTunes employs a device-led strategy – consumers must own an iPod, Apple TV, iPhone, iPad or other compatible media device to be able to access content at iTunes. The rapid success of Apple iTunes must be emphasised: since it began offering movies and TV shows as paid downloads in 2006, it has dominated the paid-for online video download market and was selling 50,000 movies globally daily in 2008 (*Screen Digest*, 2008). This a significant disruption to standard business models because it sells premium or near-premium content at close to break-even with a view to profit from hardware device sales and to 'buy' market share. This is anathema to Hollywood's notion of the value of premium content, and gives rise to the normative concern that the current choice is 'analogue dollars' or 'digital cents'.

Apple was once again succeeding in making money (despite widespread piracy) by offering a cheap price point for movie and TV downloads, just as it had done previously in the music industry, resulting in iTunes becoming the 'Wal-Mart' of online music sales. Apple proved that paid downloads can work at the right price. The majors resented the super-thin margins offered by iTunes for music downloads while Apple made huge profits from iPod sales. Having been unable to make downloads work through Movielink, the only other logical option for Hollywood was the commercial television model of free content supported by paid advertising, with which the studios and their major network siblings have lived for half a century.

Just as disruptive has been the commercial industry's necessary rapprochement with user-generated content. There is now co-evolution between the commercial/professional and household/consumer sectors. In 2008, YouTube – responding to the success of Hulu and advertiser disinterest in the majority of its content – committed to high-definition video downloads, introduced 16:9 aspect ratios and began negotiating deals with non-Hulu Hollywood studios for high-end content supported by paid advertising (Shiels, 2009) as a possible precursor to a move into online movie rentals.

How much cultural change is required of incumbents?

Mass media mentalities are being challenged deeply by what has been described variously as a more consumer-oriented, hacker-influenced blurring of the lines between professional and amateur computing cultures – what we call the IT-innovation model. This is most clearly seen in the preparedness of the backers of Hulu to look outside the film distribution culture for talent to build Hulu. Former Amazon division chief Jason Kilar was recruited to be Hulu's CEO. A 28-year-old former Microsoft researcher, Eric Feng, was hired to oversee engineering development, and much of the early code writing was done in Beijing, where Feng lived (Lyons, 2009: para. 5). The culture clash with Hollywood was captured in *Wired*'s breathless style:

> Kilar showed up for work in LA to find his offices already teeming with people. Fox and NBC-Universal had provided a couple of dozen employees on loan and brought in 40-odd consultants from PriceWaterhouseCoopers and Avenue A/Razorfish. The plan was to outsource both the site design and the underlying computer code. Kilar was aghast. 'Technology is the source of our competitive advantage,' he explains … 'For us to design the company to last, we had to write every line of code ourselves.' He sent the network people back to their old jobs and told the consultants they were out. Then

he affixed a whiteboard to three of the walls in his office and wrote out a mission statement and some basic design principles. (Rose, 2008: para. 15)

The irony is that this IT-innovation model, which has caused such disruption to the content industries, is in this instance at the *service* of core media content industry. This journalistic account is about the displacement of the Hollywood model by the IT innovation model – in order to save the Hollywood model.

OLD servicing independent and rest-of-the-world (ROW) cinema

There are a number of sites that offer OLD services outside the Hollywood system, but the industry shakeout and the global recession took their toll on many. In general – as we have seen when considering the state of play for Australian filmmakers – the infrastructure for non-Hollywood cinema online is embryonic and volatile. The strongest activity is based in the huge, burgeoning Chinese domestic market, and also in intense broadband-enabled markets like Korea.

Jaman is a significant site specialising in ROW and independent cinema, and is partnered with Apple TV. The Jaman player gives movies a 'cinema look' and, to make its website sticky, it effectively uses social media affordances. On CreateSpace (owned by Amazon), the filmmaker can upload their indie movie and DVD cover artwork and CreateSpace will place their movie on Amazon VOD where their fan base can rent or buy. CreateSpace also sells indie movies as DVDs on demand – that is, no inventory is carried, but if a customer orders an indie film CreateSpace burns the DVD, labels it, packs it in a DVD case and prints off the cover artwork supplied by the indie producer, and then mails it to the customer just like any other online DVD purchase. Amazon also owns Withoutabox – an online marketplace for film festival buyers and sellers that can wire indie filmmakers into thousands of film festivals – and IMDB.com, which in turn owns Box Office Mojo.

B-Side is a online content aggregator offering downloading to own or burn to DVD, an online marketplace for 150 film festivals, with social features, audience feedback, blogs, reviews and ratings. BSide films are distributed via content supply deals with Apple iTunes, Amazon VOD, Hulu and Netflix. Babelgum has a focus on Asian cinema in professional formats, plus short films. I-Arthouse, the sister site to EZ Takes, focuses on world cinema. Dovetail.tv is an indie distribution platform; it has ad-supported free short films and documentaries, plus a Dovetail player. Dovetail closed down in mid-2009. Breakthrough Films has DVD authoring and artwork facilities, a retail DVD distribution site that facilitates self-distribution and 'connects audiences and filmmakers', building an indie fan base with Amazon-style recommendations.

Heretic Films houses indie films, documentaries and associated social media. Heretic shut down briefly in 2009, but re-emerged online in conjunction with B-Side.com. Caachi is an online global distribution platform with some free films that are ad-supported; you can download-to-own indie short films and documentaries; it uses the Miro player for PC/Macs and mobile phones. Caachi closed down in May 2009. IndieGoGo offers crewing and financing via fan swarming.

The major non-US user bases are indicated by these data: Japan's five largest film studios joint-ventured in 2009 to launch Marumaru Eiga – a pay-per-view channel for classic and contemporary Japanese films available via the Actvila

VOD service (Gray, 2009b). Japan's most popular video-sharing website is Nico Nico Douga and Yahoo/Usen's GyaO distributes a mix of free movies, trailers and music in Japan. Voole is the fourth legally licensed Chinese VOD website (the others are joy.com, 51tv.net and netandtv.com) and Voole became China's first movie-on-demand site with links to majors such as Warner Brothers when it launched in 2008 (Yu, 2008; Kay, 2008). Indian users are the next biggest consumers on the web for movie watching afterUS viewers. They go to the big Indian sites Bigflix (the Indian Netflix), Eros, Rajshri and Saavn, and they are also big users of Jaman (30.5 per cent of all site visitors), EZ Takes (16.5 per cent), Crackle (10.9 per cent), CinemaNow (10.7 per cent), ifc.com (8 per cent), Vuze (6 per cent), iTunes (4.3 per cent), YouTube (4.1 per cent), Blinkbox (3.8%) and CreateSpace (2.9 per cent). In Europe, Lovefilm.com is a popular British online film download and DVD rental company, and Maxdome is a sizeable German VOD portal.

Conclusion

This article has used online distribution of film as a case study of how to research *change* in fast-moving new media phenomena without analytical foreclosure on programmatic optimism or determined scepticism over the potential of new technologies. By definition, the conclusions reached must be provisional – in the spirit of Elizabeth Eisenstein, we must seek to understand the 'transitional times' without recourse to totalising explanatory schema.

Although the rate of change in the online distribution of film has been modest over the past decade, the pace is now accelerating. Recent developments lend support to the proposition that online distribution of film has progressed from the fragmentation stage of the industry life-cycle to the shakeout (or growth) stage – that is, the phase when most rapid growth occurs and, as a precursor to maturity and high profitability, enterprises fail (Veoh, Joost, Dovetail, Caachi, Zoie) and consolidation occurs – smaller content aggregators like BSide have established arrangements with Amazon, Hulu, iTunes and Netflix to supply content.

There *are* some genuinely new players in online distribution of film and TV that have successfully challenged the dominance of traditional players, and there has been an intense rehearsal of mostly established but also some new business models – like micro-charging – which principally are based around what we have called the IT-innovation model.

The Hollywood studios were forced by the entry of iTunes into the paid download market to abandon their initial approaches (Movielink and Moviebeam), and are now experimenting with Hulu and streaming advertising-supported content; however, they now seem likely to move Hulu towards a mixed-subscription/ad-supported model to create a sustainable business, probably in the longer term along the lines of cable TV. Nevertheless, Apple has brought major creative disruption to the industry.

There has been significant *convergence* of different elements of the communications and content fields. The coming together of what we have called the IT-innovation culture and the mass media content culture, a mainstream theme of the past few decades, has a new twist: in the case of Hulu, it is now the IT-innovation model at the service of the mass media content model, and in competition with the purer IT-innovation model represented by Apple, which is itself – through Steve Jobs' position on the Disney board – taking content on board.

There is also *co-evolution* of the market and non-market sectors. This is clear in what YouTube/Google is doing to position itself to meet threatened litigation as well as the innovation challenges of a commercialised OLD field. But the degree to which the independent sector and UGC could be integrated into a leading and innovative business model is also clear in the case of Amazon – that is, if the OLD platforms provided by Amazon and its subsidiaries CreateSpace and Withoutabox, together with imdb.com and boxofficemojo.com, are fully exploited. Nevertheless, the formidable difference in scale and investment between mainstream OLD and those that seek to service independent and ROW cinema reminds us of the bounded nature of this current disruption to Hollywood's established practices.

References

Anytime Media Centre 2007, 'Fairfax Digital and Anytime Launch Video-on-Demand Service in Australia', media release, Anytime Media Centre, 29 March, www.anytimeondemand.com/mediacentre_pr_20070329.html.

BigPond Movies.com 2009, 'All Australian Titles 24 of 24', http://downloads.bigpondmovies.com/genreListAll.do.

Bloomberg News 2009, 'Blockbuster May Explore Bankruptcy', Boston.com, Bloomberg News, 4 March, www.boston.com/business/articles/2009/03/04/blockbuster_may_explore_bankruptcy.

Broughall, Nick 2008, 'EzyDVD to Launch Video Download Service from Ashes of Reeltime.TV', Gizmodo.com.au, 20 June, www.gizmodo.com.au/2008/06/ezydvd_to_launch_video_download_service_from_ashes_of_reeltimetv.

Bulkley, Kate 2007, 'What Exactly is Bebo's Business Model?' *Broadcast*, 21 November, www.broadcastnow.com.

Chen, Jason 2009, 'TiVo Gets Blockbuster OnDemand Rentals and Purchases Soon', Gizmodo.com.au, 25 March, www.gizmodo.com.au/2009/03/tivo_gets_blockbuster_ondemand_rentals_and_purchases_soon.

Cheng, Jacqui 2009, 'Netflix Hints at Premium Streaming Channel', Arstechnica.com, 1 February, http://arstechnica.com/media/news/2009/02/netflix-hints-at-premium-streaming-channel.ars.

Comscore 2009, 'Americans Viewed a Record 16.8 Billion Videos Online in April Driven Largely by Surge in Viewership on YouTube', Comscore VideoMetrix, http://ir.comscore.com/releasedetail.cfm?ReleaseID=388126.

Dudley-Nicholson, Jennifer 2009, 'Big Stream Cinema', Connect with Technology, *Courier-Mail*, 4 November, p. 63.

Eisenstein, Elizabeth (ed.) 1979, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe* (2 vols), Cambridge University Press, Cambridge.

Gray, Jason 2009a, 'Warner Bros to Speed up VOD Releases in Japan', *Screen Daily*, 28 May, www.screendaily.com/5001913.article.

—— 2009b, 'Five Japanese Majors Join Forces for VOD Movie Channel', *Screen Daily*, 30 March, www.screendaily.com/five-japanese-majors-join-forces-for-vod-movie-channel/4043829.article.

Hachman, Mark 2008, 'New Sezmi Set Top Blows Away the TV', *PC Mag*, 1 May, www.pcmag.com/article2/0,2817,2289653,00.asp.

Kay, Jeremy 2008, 'Warner Strikes Innovative Digital VOD Plan in China', *Screen Daily*, 4 November, www.screendaily.com/warner-strikes-innovative-digital-vod-plan-in-china/4041757.article.

Internet Archive 2009, www.archive.org/search.php?query=australian%20films.

IT Wire 2007, 'Microsoft and BigPond Launch Australian Vista Movie Download Service', 30 January, www.itwire.com/content/view/9043/532.

Jaman.com 2009, ‘Movies from Australia – Movie Downloads – Watch Online – Jaman’, www.jaman.com/Australia/region/4.

Kidman, Angus 2009, ‘Quickflix Offers Movie Downloads, Munches Your Bandwidth’, Lifehacker.com.au, 14 May, www.lifehacker.com.au/2009/05/quickflix-offers-movie-downloads-munchesyour-bandwidth.

Let Me Watch This.com 2009, ‘Somersault’, www.letmewatchthis.com/movie-3331-Somersault.

Levin, Jordan 2009, ‘An Industry Perspective: Calibrating the Velocity of Change’, in Jennifer Holt and Alisa Perren (eds), *Media Industries: History, Theory and Method*, Wiley-Blackwell, Malden, MA, pp. 256–63.

Lyons, D. 2009, ‘Old Media Strikes Back’, *Newsweek*, www.newsweek.com/id/185790.

Manjoo, Farhad 2009, ‘Do You Think Bandwidth Grows on Trees?’, *Slate Technology*, 14 April.

McGahan, Anita M., Argyres, Nicholas and Baum, Joel A.C. 2004, ‘Context, Technology and Strategy: Forging New Perspectives on the Industry Life Cycle’, *Advances in Strategic Management*, vol. 21, pp. 1–21.

Meade, Amanda 2009, ‘Telstra Puts Net Flicks on the Small Screen’, *The Australian*, 16 November, p. 29.

Miller, Toby 2009, *Television: The Basics*, Routledge, London.

Moses, Asher 2006, ‘BigPond Movies Makes On-demand Video a Reality’, *CNET Australia*, 22 February, www.cnet.com.au/bigpond-movies-makes-on-demand-videos-a-reality_print-240060518.htm.

Murphy, Claire 2008, ‘Drama That’s Ahead of the Pack’, *The Guardian*, 22 September, www.guardian.co.uk/changingadvertising/web.productions.

Nielsen Online 2009, ‘Middle Agers Help Hulu Grow 490%’, www.marketingcharts.com/television/middle-agers-help-hulu-grow-490-9125/n…

Noh, Jean 2008, ‘Warner Bros to Release Dark Knight on VOD Before DVD in Korea’, *Screen Daily*, 3 December, www.screendaily.com/warner-bros-to-release-dark-knight-on-vod-before-dvd-in-korea/4042216.article.

Parrick, Dave 2008, ‘YouTube to Acquire Full-length Movies from Sony? From UGC to Premium Continues’, *WebTVWire*, 7 April, www.webtvwire.com/youtube-to-acquire-full-length-movies-from-sony-from-ugc-to-premium-continues.

Richmond, Will 2009, ‘Other Analysts Waking Up to Concerns About Hulu’s Business Model’, *VideoNuze*, 20 May, www.videonuze.com/blogs/?2009-05-20/Other-Analysts-Waking-Up-to-Concer…

Rose, F. 2008, ‘Free, Legal and Online: Why Hulu is the New Way to Watch TV’, *Wired Magazine*, www.wired.com/entertainment/theweb/magazine/16-10/mf_hulu?currentPage=all.

Schroeder, Stan 2008, ‘MySpace Adds Videos to its Mobile Portal’, Mashable.com, 3 December, http://mashable.com/2008/12/03/myspace-video-streaming-mobile.

Screen Digest 2008, ‘Online TV and Video Audience Demand Continues to Grow but Profit Evades Many Players’, media release, 11 November, www.screendigest.com/press/releases/pr_11_11_2008/view.html.

—— 2009, ‘Movie Download Market Fragments’, *Screen Digest*, February, p. 44.

Shiels, Maggie 2008, ‘Full-length MGM Films on YouTube’, *BBC News*, 10 November, http://news.bbc.co.uk/2/hi/technology/7720918.stm.

Sinclair, Lara 2009, ‘Seven Leading in Race to Deliver Movie Downloads’, *The Australian*, 9 March, www.theaustralian.com.au/business/media/seven-leads-movie-download-race/story-e6fgr996-1111119070915.

Small, Rob and Wolfson, Randi 2008, ‘Apple Premieres Movies on the iTunes Store in Australia & New Zealand’, Apple Press Release, 14 August, www.apple.com.au/pr/library/2008/08/14itunes.html.

Sydney Morning Herald 2003, ‘Hoyts Invests in Internet-based DVD Home Rental Service’, 5 November, www.smh.com.au/articles/2003/11/05/1067989595862.html?from=storyrhs.

The-Numbers.com 2009, ‘*Somersault* – North American Box Office Data’, www.the-numbers.com/movies/2006/SOMER.php.

Urban, Andrew 2004a, ‘Movies via Internet on Demand’, UrbanCineFile.com.au 25 March, www.urbancinefile.com.au/home/view.asp?Article_ID=8722&p=y.
—— 2004b, ‘Cineclix – A World of Films At Your Fingertips’, UrbanCineFile.com.au, 21 October, www.urbancinefile.com.au/home/view.asp?a=9521&s=Forum.
—— 2005, ‘Australian Box Office 2004: Forget the Size, Feel the Width’, www.urbancinefile.com.au/home/view.asp?a=9947&s=Forum.
—— 2006, ‘Movies on Demand – Digital Tsunami Ignored?’, Urban CineFile.com.au 3 August, www.urbancinefile.com.au/home/view.asp?a=12097&s=Forum.
Walsh, Mark 2009, ‘Report: TV Networks Should Be Afraid – Very Afraid – of Hulu’, *Media Post News*, 14 September, www.mediapost.com/publications/?fa=Articles.showArticle&art_aid=113407.
Wilkofsky Gruen Associates Inc. 2008, *Global Entertainment & Media Outlook 2008–2012*, PriceWaterhouseCoopers, New York.
Yahoo! 2006, ‘Reeltime.tv and Yahoo!7 Announce Australia-first Download Deal’, media release, Yahoo!7 Press Room, http://au.docs.yahoo.com/info/pr/pr.html?id=82.
Yu, Sen-lun 2008, ‘China’s Voole.com Launches Legal Film Streaming Network’, *Screen Daily.com*, 30 September, www.screendaily.com/chinas-voolecom-launches-legal-film-streaming-network/4041124.article.

Stuart Cunningham *is Distinguished Professor of Media and Communication, Queensland University of Technology, and Director of the Australian Research Council Centre of Excellence for Creative Industries and Innovation.*

Jon Silver *is a Senior Lecturer in Film, Television & New Media at the Creative Industries Faculty, Queensland University of Technology.*

John McDonnell *is a Senior Lecturer in Marketing in the Business Faculty, Queensland University of Technology.*